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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,738	12/17/2001	Yasuhiko Suzuki	1155-0234P	1181

2292 7590 03/04/2003

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EXAMINER
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LEE, RIP A

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 03/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/009,738

Applicant(s)

SUZUKI ET AL.

Examiner

Rip A. Lee

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 1, 3, 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 and 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Objections*

1. Claim 1 is objected to because of the following informalities: The term “compound having a reduction ability” may be simplified to “reducing agent.”
2. Claim 1 is objected to because of the following informalities: The claim is drawn to catalysts comprised of metal complexes containing group 11 metals. Such meritorious claims would be novel indeed since use of group 11 metals, other than as counterion, in olefin polymerization catalysts is unprecedented. Appropriate correction is required.
3. Claim 1 is objected to because of the following informalities: Use of the word “them” on page 85, line 5 is confusing because the antecedent to which this word refers is unclear. Appropriate correction is required.
4. Claim 3 is objected to because of the following informalities: Use of the term “the organic metal compound (B-1)” is unclear. The parent claim does not indicate that (B-1) is an organic metal compound, hence, the claim lacks antecedent basis. If the recitation is intended to limit further the identity of (B-1), then use of alternate claim structure is strongly suggested. Appropriate correction is required.
5. Claim 4 is objected to because of the following informalities: Rewrite the claim as “...wherein the activity is at least 1000 kg polyolefin/mole transition metal atom/hr.”

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6. Claim 4 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim can not depend from a multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claim 4 has not been further treated on the merits.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 1-3 are rejected under 35 U.S.C. 102(a) as being anticipated by JP 11-199592.

The patent describes a process for polymerization of olefins using a catalyst that contains transition metals having structures consistent with those described in the present claims (see claims and extensive listing of compounds on pages 12, 14, 15, 17, and 26). The catalyst composition also contains an organometallic compound, an organoaluminum oxy compound, and at least one species of compounds that forms an ion pair with the transition metal compound (paragraph [0010]). Use of a carrier is also contemplated (paragraph [0015]). The examples show that such a combination would include the use of *i*Bu<sub>3</sub>Al and [Ph<sub>3</sub>C][B(C<sub>6</sub>F<sub>5</sub>)<sub>4</sub>] (for instance, Example 5), and according to the present application, triisobutylaluminum reacts with the imine complex by reducing the complex to an amine, and the trityl salt is well-established as an ion forming compound by reaction with the transition metal complex. As such, the subject matter of the present claims is taught adequately in the prior art.

9. The prior art made of record but not relied upon is considered pertinent to the Applicant's disclosure.

U.S. 2002/0151661 to Suzuki *et al.*

EP 1 170 308 to Inoue *et al.*


EP 1 243 598 to Suzuki *et al.*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (703)306-0094. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (703)308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703)746-7064. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

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February 24, 2003

  
DAVID W. WU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700